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SOME BEES COLLECTED BY PROFESSOR JACOT IN CHINA

BY T. D. A. COCKERELL

The following bees, collected in Tsinan, China, in the spring of 1930, were sent by Professor Arthur Jacot, of the Shantung Christian University. For previous accounts of bees from this locality see Entomologist, September, 1929 and April, 1930.

Chalicodoma desertorum tsinanensis Cockerell

Described from the female. Five males are now sent, taken March 23. They agree with the brief description of male *C. desertorum*, except that the mandibles are entirely dark.

Osmia jacoti Cockerell

This was described from the female. A series of six males, collected at flowers of *Viola*, March 23, consists of three *O. jacoti* and three *O. subtersa* Cockerell. These two species, in the male, vary in size and color (one *C. subtersa* is only 6.5 mm. long) and are in all respects closely allied. In *O. jacoti* the hair of the face is a slightly sordid or brownish white, as against the snow-white of *O. subtersa*. The abdomen of *O. jacoti* is olive-green to almost black, that of *O. subtersa* more or less distinctly steel-blue, sometimes quite bright. The notch in the sixth tergite of *O. jacoti* is deep and semicircular; both species have the seventh ending in two sharp spines. The genitalia distinctly differ, the stipites being thick and obtuse at end in *O. subtersa*, slender and pointed in *O. jacoti*; while the sagittæ in *O. subtersa* are more obtuse at end (see figure).

Anthophora melanognatha Cockerell

Two males and a female, at *Astragalus*, April 2. The males differ from the type in having a small yellow spot on the mandibles. The female has red hair on the hind tibiæ and tarsi. The male face markings are light yellow, not orange as in *A. fulvitarsis* Brullé.

Anthophora patruelis, new species

MALE.—Length, 13–15 mm. (varying with extension of abdomen); anterior wing 10.5 mm.; very robust, black, the body with long and abundant gray (not at all fulvous) hair, the gray effect due to a combination of white and black; face-markings very pale yellow, including the shining clypeus (except lateral lobes, very small mark at each side, and linear lower margin), narrow supraclypeal band, labrum (except lower edge and large lateral tubercles), and remnants of lateral face marks, which are reduced to a short band next to clypeus (appearing to deviate from it at lower end, but this effect due to the fact that the lateral lobes of clypeus are black), and two very minute spots (the upper often absent) on orbital margin; scape broadly light yellow in front; flagellum entirely black; third antennal joint as long as next three together; face with long white hair, but some black at sides; thorax with abundant long white hair, mixed with black on disc; tegulæ black; wings dusky; basal nervure meeting nervulus; legs with long pale fulvous hair; spurs light ferruginous; joints two to four,

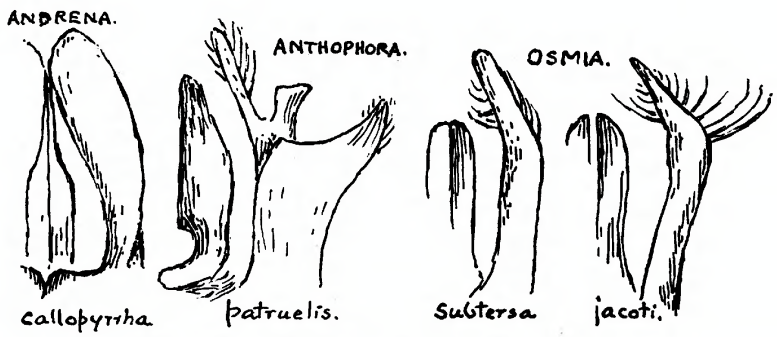

Fig. 1. Male genitalia.

and base of fifth on middle and hind legs ferruginous, dusky at end; middle basitarsi broadened, the apical half anteriorly with a brush of black hair, and a little on posterior side, while the last joint of these tarsi has a long black fringe on each side; hind basitarsi not toothed; abdomen with long shaggy white hair, forming conspicuous bands on tergites two to four, but there is long black hair before these bands; genitalia very robust, ferruginous, of complicated form, as shown in the figure.

Tsinan, April 3, 1930, six males at *Astragalus*.

Looks like a small *A. melanognatha*, but easily distinguished by the reduced lateral face marks, and from most of the allied species by the entirely black mandibles. The stipites are much longer, narrower and paler than in *A. acervorum lisbonensis* Cockerell, which has very similar pubescence on thorax and abdomen. The genitalia are also quite distinct from those of *A. fulvitarsis* Brullé, which is a related species.

Tetralonia jacoti (Cockerell)

Tetralonia chinensis jacoti COCKERELL, 1930, Entomologist, LXIII, p. 84, ♀.
Tetralonia polychroma COCKERELL, 1930, Entomologist, LXIII, p. 85, ♂.

These are proved to be one species by a pair taken mating, April 5, by Professor Jacot. Males were also taken March 25, 28, and April 2. The species is certainly distinct from *T. chinensis*. The mating male has the dorsal hair of thorax very pale yellowish, shining white, but most males show the rich fox-red hair.

Andrena callopyrrha Cockerell

Described from the female. The present lot contains thirteen males, taken March 25 and April 3. The male closely resembles the female except in the usual sexual characters. The head and thorax are covered with red hair; face very broad, its tegument entirely black; abdominal bands light fulvous, broadly interrupted on second tergite; tibiæ and tarsi red, the anterior tibiæ variably blackened on outer side; hind femora red, more or less clouded with black. Mandibles slender, ordinary, and cheeks rounded. For genitalia see figure. In Schmiedeknecht's table (Apidæ Europææ) this runs directly to *A. xanthura* Kirby (*wilkella* Kirby), from which it is readily distinguished by the more shining abdomen and the color of the pubescence. The third antennal joint is considerably longer than the fourth, yet not nearly twice as long. Two of these males carry *Stylops*.

Specimens of all these species, including the holotype of the new *Anthophora*, are in The American Museum of Natural History.